DE MIEVLX JE PENSE MIEVLX
VARIETY
OF EXCELLENT
SYMMETRICALL
RULES.
of Drawing Limning &c
Invented by Odoard Fialetti
and others

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THE Whole Art

OF

DRAWING, LIMNING,
PAINTING, AND ETCHING.

Collected out of the Choicest Italian and German Authors.

To which is added Exact Rules of Proportion for Drawing the Heads of Men, Women and Children, of what Bigness soever.

Originally invented and written by the famous Italian Painter *Odoardo Fialetti*, Painter of *Boloign.*

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MVSEVM
BRITAN
NICVM

TO THE

Great Cheriſher of all Ingenuous Artiſts.

Sr *WILLIAM PASTON* Baronet, &c.

Honoured Sir,

I Was a Fate as happy as accidental, threw this enſuing Treatiſe into my hands, ready inſtructed at the charge of a Perſon of Honour in the Engliſh Tongue, and by him preſerv'd as a Jewel (bound up together with the Original Prints and Italian Comment) for private uſe. There hath been no Parallel it'h ſame Species ever publick in this our native dreſs, which put me to a pauſe, till the remembrance of your unſerved favour (deſpairing of any thing of my own, worthy your acceptance)

tance) prompted me to communicate. And the rather, because I find my Author both precedent and warrant, first unlocking this treasure in his Mother tongue. Let therefore the genuine propensity, your disposition bears to Arts of this nature, pardon my presumption; and your wonted candor, not only curteously entertain this Stranger (whose noble extract shines through all disguises) but also vindicate him against incident injuries; from which, the inscription of no Name I know, can better protect, then your own. Sir, I may not longer detain you here, since I dare hope you will take some delight in the Garden, though this passage be wholly unpleasant, were it not an Inlet, and the only conveyance of the duty and observance of

Your Honours most humble and obliged Servant;

Alexander Brown.

THE

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THE ART OF DRAWING.

Severall Instructions and Observations directing to the Art of Drawing.

BEcause the greatest difficulties and principall parts of this Art consist in some part in Drawing the lively Resemblance of a Face, therefore I thought it very necessary to add this as a further direction to Draw any Face after the Life.

Severall Observations in Drawing a Head after the Life.

Therefore if you will draw any Face after the Life, that it may resemble the Party you Draw it after; take notice in the first place of the Physiognomy or circumference of the Face, whither it be round or long, fat or leane, big or little; so that in the first place you must be sure to

take the right Physiognomy and bigness of the Face, and in case it be a fat Face you will perceive the Cheeks to make the side of the Face swell out, add so make the Face look as if it were square; and if it be neither too fat nor too leane, it will be round for the most part; but if it be a leane Face the Jaw-bones will stick out, and the Cheeks fall in, and the Face will be long and slender. Observe when you Draw the outmost circumferences of a Face, to take the Head and all with it, or otherwise you may be deceived in Drawing the true bigness of a Face, then you must diligently and judiciously observe and discerne all the Gentlemaster touches, which gives the spirit and life to a Face, and discovers the graces or disposition of the mind, wherein lyeth the whole grace of the work, and the credit of the Artist, you may easily discerne a smiling countenance in the corners of the mouth when they turn up alittle; you may best discerne a staid and sober countenance in the eye, when the upper eye-lid comes somewhat over the Ball of the Eye; but a frowning countenance is easily discerned in the Forehead by the bending of the Eyebrowes, and some few wrinckles about the top of the Nose between the two Eyebrowes; and a laughing Countenance is easily discerned all over the Face; but an angry Countenance is discerned by extraordinary frownings; there are also some touches about the Eye and Mouth which you must diligently observe, which gives the spirit and life to a Face.

Some generall Rules to be Observed in Drawing the Figure of a Naked Man after the Life.

A standing Figure from the top of the head to the bottome of the feet is eight times the length of the Head, and because you ought to be most exact in Drawing the Head, because the whole body must be proportioned correspondently to the Head; therefore I shall give you in short some severall Rules and Observations to Draw a foreright Head. First, Draw an Ovale, then devide that Ovale into four equall parts; the first is for the Hair, the second for the Forehead and Browes; the third for the Nose, the fourth for the Mouth and Chin, as afore written in the Book of Fielettoe. But when you Draw after the life, you are not to follow this Rule exactly, because some Men have a long Nose,

and

and another a ſhort; one a high forehead, another a low forehead; Therefore if you look upon a hundred Mens Faces that they all differ one from another, the eyes muſt be placed juſt the length of one eye the one from the other. Then having Drawn the Head, you meaſure out eight times the length of the Head, then the Head is reckoned one of the eight parts; then you muſt Draw a ſtraight Line from the top of the Head to the ſole of the Foote, one Heads length from the Chin, you muſt Draw the Breſts the third length reacheth to the Navell, the fourth to the privities, the fifth reacheth juſt to the middle of the Thigh, and the ſixt to the lower part of the Knee, the ſeaventh to the ſmall of the Legg, and the eighth to the Heel and ſole of the Foot: But obſerve as you Draw downwards from the Head to place the Muſcles in their right places according to nature; and becauſe there are no certain Rules for Drawing the Muſcles but only to obſerve them exactly as they are in the Life. The breadth of the Shoulders containeth two meaſures of the Head, the breadth of the Hipps two meaſures of the Face, and the Armes ſtretched out are eight meaſures of the Head, and if the Breſts be reckoned unto them, ſo the Armes without the Breſts are but ſix meaſures. And note that when an Arme hangeth ſtraight down it reacheth within a ſpan of the Knee: a Hand muſt be no longer then the length of the Face, that when the Hand is ſpread abroad, it muſt as it were cover the Face and no more; It is very neceſſary for one that intends to practiſe to Draw Naked Figures to Draw after good Anatomies of Plaiſter, and when you have practiſed a while, it will learn you to place all your Muſcles according to Nature or Art. There are alſo good Books of Anatomies with Prints and inſtructions to them, which are very uſefull for one that intends to draw a good Naked Figure, which you can never be eminent at, without you underſtand the Anatomy and uſe to Draw after the Life very much.

Some further Obſervations in Drawing a Naked Figure.

Whatſoever you Draw, Draw it at firſt very lightly with a Cole, becauſe if it be out of proportion you can the eaſier mend it, and rub it out, and Draw it again anew: but note, that you muſt finiſh

nothing with your Cole, before you ſee every thing is placed right according to Art and proportion and then finiſh it the one after the other as exactly and curiouſly as you can poſſibly in the Drawing a Naked Figure. Obſerve firſt that you draw the Head very exactly, and next the Shoulders in their juſt breadth, as before mentioned, containing two meaſures of the Head; Then you Draw the Trunck of the Body beginning juſt at the Arm-pits, and you may leave the Armes to finiſh till afterwards, and then you proceed to Draw down to the Hipps on both ſides, but be ſure that you exactly obſerve the breadth of the Waſt; and when you have done this, then Draw that Leg firſt which the Body ſtandeth firmeſt upon, then Draw the other which ſtandeth looſer of the two, but be ſure to place that Leg which the Figure ſtands upon firmely and right, upon the ſtraight Line which cometh down from the Head, or elſe the Figure may ſeem to yield one way or the other, and as it were fall; and laſtly you muſt proceed to Draw the Armes and Hands.

A further Obſervation.

When you Draw a Naked Figure you muſt judiciouſly and exactly obſerve to place the Joynts and Sinews and Muſcles in their naturall places, according to their proportion, and obſerve that one Joynt be not higher or lower then the other; otherwiſe the Figure will ſeem to be crooked and deformed and out of proportion to the judicious eye; ſee that every parallel Joynt muſt bend moderately according to Nature, and anſwer the other which is oppoſite to it; and note that the ſtraight ſtroake muſt be ſtruck according to the bending of the Body, ſo that if the Body bowe, the ſtroke muſt bowe alſo, and if the body ſtoope downwards a little, you muſt ſtrike your ſtroake ſloping accordingly; then make the Shoulder, which ought to ſtand ſtraight over one another, the one to be a little higher then the other, on that ſide which the body turns upon the Shoulders and the other Joynts, which otherwiſe ought to be placed one even againſt another; you muſt make them to yield ſomething lower then that ſide the Figure ſtands firmeſt upon, more or leſs, anſwerable to the ſtooping of the Body; and be ſure to be very exact and carefull in the Drawing your outmoſt circumferences,

and

and to be very carefull in Drawing your Muſcles and Joynts which are in the body; therefore becauſe you ſhould place things in their right and natural places, you ſtrike the ſtraight Line from the Pit of the Throat ſtraight down, juſt in the middle of the Body, where you can diſcern the parting of the Ribs. From thence you muſt proceed with your Line quite down to the Feet, and be ſure to obſerve the bowing and bendings of the Body, and to draw that part which is oppoſite to that which bendeth, to yield and bend accordingly with it: As for example, if one ſide of the Body doth yield or bend inwards, then you muſt make the other ſide for to ſtand out anſwerable, and according to the bending in of the other ſide; and obſerve whenſoever you draw the Back bending in, you muſt make the Belly to yield in according to it, ſo that when the Belly yields in, the Back muſt ſtick out according to proportion; and alſo if the Buttocks ſtick out, then that which is over in oppoſition to it muſt yield in equally. This is not only to be obſerved in theſe parts of the Body, but in all the other alſo; as when the Knees bend out, then the Hammes which anſwer to it muſt yield in accordingly, and therefore this Rule is very neceſſary to be obſerved very exactly in all the other Joynts; or elſe peradventure the Body will not have all the natural windings and yieldings, which give the greateſt looſeneſs to any Figure whatſoever. Withall be ſure to uſe your utmoſt endeavour to make things of an anſwerable and equall proportion and bigneſs according to Art, that is to ſay, not to make a Leg or an Arm or any other Joynt, not of an equall and ſuitable bigneſs, but to make one bigger then the other; therefore obſerve to make all the Joynts of an equall bigneſs, both of bigneſs, length, and breadth, but according to proportion. But in caſe any part of the Body yield or turn ſomething away from the Eye, then you muſt decline that part which turneth according to proportion; and likewiſe if any part of the Body do appear to the Eye to foreſhorten, as when it doth hinder the ſight of the full Latitude of that part of the Body: Therefore I ſay upon ſuch occaſions, the Body or part of the Body muſt be made to decline and foreſhorten, according to that proportion that the Eye doth gueſs of it; therefore be ſure to obſerve your exact diſtances one from another, how farre the one is diſtant from the other; you muſt obſerve alſo how much one part of the Body

ſticks out beyond the other; be carefull when you draw a naked Figure to draw nothing hard, but to ſhadow it fine and ſoft as poſſible you can, and not to draw the out-Circumferences ſharp or ſtiff, but as looſe as poſſible.

A way to take the perfect out-Lines or Circumferences of any Painting or Print whatſoever.

Take a ſheet of Venice Paper, and dip it in Oyl; or take a Feather, and wet the Paper all over with Oyl of Turpentine, then take a clean linnen Rag, and after the Oyl is ſoaked into the Paper a while, rub the Oyl clean off from the Paper as clean as you can, for if the Paper be Oyly it will ſpoil any Print, becauſe that the Oyl will ſoak through. Then having prepared the Oyl-Paper, take it and lay it upon the Painting or Print which you intend to draw after, and you ſhall perceive all the Painting very clearly through the Oyl-Paper. Then you take a black lead Penſil, and draw upon the Oyl-Paper all the out-Lines and Circumferences thereof, then take a piece of Charcole, or a piece of black Lead, and ſcrape it upon the backſide of the Oyl-Paper, then take a Feather and rub it all over, and ſhake off the reſt; this being done take a ſheet of clean Paper, and lay under the Oyl-Paper; then take a Stift, and draw all the ſame ſtroaks which you drew before upon the Oyl-Paper over again, then take the Oyl-Paper off from the other, and all the ſame out-Lines will be upon the clean Paper; then if you think good, you may finiſh it up according to the Painting or Print you draw it after.

A way to decline or bring any Painting or Print into a leſſer compaſs.

If it be a Painting that you intend to decline, then you take a pair of Compaſſes, and divide the length of it into ſo many equall parts as you think convenient, and the breadth alſo with the very ſame diſtances, then you muſt take a piece of Packthread and chalk it, then take that Line, and ſtrike upon all the parts which you divided with your Compaſſes, ſo many ſtrait Lines as there are parts in the length, then ſtrike them Lines that go in the breadth, quite acroſs them in the length,

ſo

ſo that it may be all uniformed; ſo the like with that as you would have ſmaller or greater, according to your intention; and by the diſtances in the Chequers you gueſs to draw it ſmaller accordingly.

A further direction for Drawing.

Be ſure to place all the Muſcles in their right and proper places: By the Muſcles I mean the ſhadows that are cauſed by ſome dents or ſwellings in the face or body; therefore labour to find out the reaſon of every Muſcle, that ſo you may proceed to work with the more judgement; you ſhall perceive the moſt Muſcles in old and withered faces. Firſt you muſt draw the principle of them, and then place the features exactly in their right places; obſerve to ſhadow them rightly, and be ſure not to make them too dark where they ſhould be faint, for if you ſhould, you can never recover it to make them light again; the ſhadowes are generally fainter and lighter in a fair face, then in a ſwarthy complexion. And when you have finiſhed your draught, you muſt give it here and there a hard touch where it is darkeſt ſhadowed, which will adde a great life and grace to it.

Certain choice Obſervations concerning Miniture or Limning.

HEre you begin to paint, you muſt be exact at Deſign or Draught, ſo as to be able to Copy any Picture in black and white, with Cole-black, Chalk, Black Lead, or the like.

The Colours to be painted with are thus termed.

White { *Cereus.* / *White Lead.* | Red { *India lake.* / *Red Lead.* / *Mynne.* | Yellow { *Maſticot.* / *Yellow Ocur.* / *Engliſh Ocur.*

Green { *Sap green.* / *Pink.* / *Blew Verdure.* / *Green Bice.* / *Terra Vert.* | Blew { *Indico.* / *Ultra marine.* / *Blew Bice.* / *Smalt.*

Brown { *Spaniſh Brown.* / *Collins earth*, or *Terra de Coloma.* / *Umber.* | Black { *Cherri-ſtone.* / *Ivory black.* / *Lamblack.*

As for Vermillion, Verdigreaſe, Orpiment, *&c.* they are too courſe and gritty to paint in Water-colours; Turnſoil, Litmus blew, Roſſet, Braſill, Logwood, Saffron, are more fit for waſhing Prints, then curious Limning.

Griſatrice

Griſatrice.

Faint ſhade for the Face] Mingle together white Engliſh Ocur, Indico, a little Maſticot.
Deep ſhade] White Engliſh Ocur, Umber.
Dark ſhades in mens Faces] India-Lake and Pink mixt.
Ruddy Compl.] Mine, Vermilion, Lake, Cereus, Ana q. s.
Mingle white Lead with all the ſhades.

Biſe.

To Waſh Biſe] Grinde the Biſe firſt very purely, then fill a ſhell with clean water, put the Biſe therein, ſtir it, and let it ſettle an hour, then reſerve the bottome and blow off the top. To deepen this uſe Litmus Water.
Deepeſt ſhade] Umber, Cullins earth, Pink, Lake, Ana q. s.
Obſervation in Grindeing] Leave not your Colour too moiſt, but thick and clammy; if after your Colour be dry, you rubbing your finger thereon finde any to come off, it muſt be better bound with Gum.
Black] Cheryſtone burnt good for Drapery.

Cereus.

White] To make your Cereus or white Lead that it ſhall neither ruſt nor ſhine (both which are no ſmall inconveniences) go this way to work before you begin to grinde either of them; lay them in the Sun to dry two or three dayes, which will exhale thoſe greaſie and ſalt humors that poyſon and ſtarve the Colours; beſides you muſt ſcrape away the ſuperficies of the white Lead, and only reſerve the middle of it; grinde it with fair water or Roſemary water with a Pebble on a Porphir.
When 'tis ground, have in readineſs a Chalk ſtone with Furrows in it, into which put the Colour

while 'tis wet, and it will be exceedingly cleanſed thereby. After it is through dry, reſerve it in clean papers, and when you would uſe it, put it in a Muſcle ſhell with Gum water made of the whiteſt Gum Arabick.

Colours to be ground are theſe.

Cereus, white Lead, India Lake, Engliſh Ocur, Pink, Indico, Umber, Spaniſh Brown, Cullins Earth, Cheriſtone Ivory.

Colours to be waſht are theſe.

Red Lead, Minne, Maſticot, green Biſe, Cedar green, Ultra Marine, blew Biſe, Smalt, Verdure, Sap green.

India Lake.

Purple] Grinde this with Gum water; when 'tis ground fine before you put it in a ſhell, mix a little powder of white Sugar Candy with it, which will make it not crack; after this Temperature, you may ſpread it with your finger thinly about the ſhell.

Engliſh Ocur.

Yellow] This Colour lies even in the ſhell of it ſelf, and is of great uſe, eſpecially if well ground.

Pink.

Green] The faireſt Pink is beſt, wherewith well ground and tempered with blew Biſe, makes an excellent green; to deepen this Colour in Landskip or Drapery, uſe Indico very finely ground.

Umber

Umber.

Brown] This Colour is ſomewhat greaſie, to cleanſe which burn it in a Crucible, afterwards grinde it and it will be good.

Spaniſh Brown.

Dark Red] Becauſe this Colour is very courſe, you may uſe Umber and a little Lake tempered inſtead thereof, which is as good.

Black.

Black] Cherriſtone and Ivory are both to be burnt in a Crucible and ſo ground. Cherriſtone is good for Drapery; for a black Sattin, temper with it a little white, India, Lake, and Indico; heighten it with a lighter mixture; deepen it with Ivory black: This was *Hilliards* way.

Ivory.

Ivory] Grinde Ivory with Sugarcandy.

Colours to be waſht and how.

Red Lead] One Inſtance may ſerve for all, and that ſhall be of red Lead, whereof take as much as you will an Ounce or two, put it into a Baſon or earthen Diſh full of fair water, ſtir it a while together till the water be all coloured, let it ſtand, and you will ſoon perceive a greaſie ſcum to ariſe, which with all the water caſt away, put freſh water to it, and do as before a ſecond time; but before the water be half ſetled, pour all the water into a clean Diſh to this water in your ſecond Baſon, you muſt adde more clean water, and mingle both together, then let it ſettle, afterwards pour out the water, and that ſmall pittance at the bottome is only good, which after 'tis dry muſt be taken off with a Feather, and put up in papers for uſe.

To uſe it, ſpread a little of it about the ſides of a ſhell, and with your finger temper it with Gum water.

Pencils] Chooſe ſuch Pencils as are clear, ſharp-pointed, not dividing into parts; of theſe you muſt have in readineſs a ſeveral Pencil for every ſeveral Colour.

To prepare a Tablet to Work on with Miniature for Pictures by the life.

Take an ordinary playing Card, polliſh it with a Dogs tooth, and make as ſmooth as you can the white ſide of it, cleanſing it from all ſpots and extuberances; then chooſe of the beſt abortive Parchment a piece proportionable to your Card, which piece with fine and clean Starch paſte faſt on the Card, temper the Starch before you paſte it on in the Palm of your hand, that it may be free from knots; let the Card thus paſted dry, then making your Grindeing ſtone as clean as may be, lay the Card thereon with the Parchment ſide downward; then with a tooth burniſh or polliſh the backſide as hard as you can. Note that the outſide of the skin is beſt to paint upon, and muſt therefore be outmoſt.

To Prime for a Face] Your Card thus prepared, you are to lay a Ground or Primer of fleſh Colour before you begin your work, and that muſt be tempered according to the Complexion of the Face to be drawn; if the Complexion be fair, temper white, red Lead, and Lake; if an hard ſwarthy Complexion, mingle with your white and red a little fine Maſticot, or Engliſh Ocur; but note, that your Ground ought alwayes to be fairer then the Face you take, for it is a facile matter to darken a light Colour, but a difficult to lighten a deep one; for in Limning you muſt never heighten, but work them down to their juſt Colour.

Your Ground thus prepared, you muſt lay it on the Card (ordered as before) with a Pencil bigger then ordinary, lay it on as ſmooth, even, and free from hairs of your Pencil as 'tis poſſible, which that you may do, fill your Pencil full of Colour rather thin or watriſh, then thick and groſs, and with two or three daubes of your great Pencil, lay it on in an inſtant, the nimbler it is laid on, the evener the Colour will lie.

Note

Note] Note that you ought to cover rather too much then too little with this Prime; cover some what more of the Card with the Ground Colour, then you ſhall uſe for the Face.

This done, take a pretty large ſhell of Mother-pearl, or another ſhell, and before you begin to work, temper certain little heaps of ſeveral Shadowes for the Face, which you may diſpoſe about the edges of the ſhell.

The Order of Shadowes for the Face.

Shadows] In all your Shadows, remember to mix ſome white, *exempli gratiâ*; for the red in the Cheeks, Lips, *&c.* temper Lake, red Lead; and a little white for the blew, as the Veines, *&c.* a little Indico and white, for blew Biſe is never uſed in a Face; for the fainteſt and weakeſt Colour or Shades, Lake-white, a little Ocur, and a little Indico, adding thereto if you will a ſmall pittance of Pink, or Maſticot; for the deeper Shadows, white Engliſh Ocur, Umber; for the darkeſt and hardeſt Shadows, uſe Lake, and Pink mixt with Umber. Note that black muſt not by any means be uſed in a Face: for other Shadows your own obſervation muſt direct you, for it is impoſſible to give a general Rule for the Shadows in all Faces, unleſs we could force Nature to obſerve the ſame method in Compoſeing and Modelling them, ſo that one in every Punctilio ſhould reſemble the other.

Light] For your Light to draw by a Northern is accounted beſt, which if it fall ſloping down from an high window, is beſt of all.

Poſition] Place your ſelf ſo to your Desk, that the Light may ſtrike in ſidelong from the left hand to the right; and obſerve that in all your work it will ſhew to the beſt advantage, when 'tis turned and ſeen by the ſame Light it was drawn by.

Neceſſaries in Painting] Let a Saucer or clean ſhell of fair water be ever on your right hand, wherewith you may temper your Colours and waſh your Pencils, which you muſt have on your right hand too; together with a bruſh-Pencil dry, to bruſh and cleanſe your work from duſt; alſo a ſharp Pen-knife, wherewith to take away ſuch ſpots or hairs as may caſually mix with your Colours, or fall

into your Card; you may alſo conveniently cover your Picture with a piece of paper, whereon to try your Pencils before you begin to work.

To begin a Face.

The firſt Draught] Having theſe accommodations, draw the Lines of Porphile (*i. e.* the outmoſt ſtroaks) of a Face with Lake, and white mingled, very faint; by this you may conveniently mend the Draught (if falſe) with a deeper mixture of the ſame Colour; the Lines being exactly drawn, and true proportion obſerved) (which is the chiefeſt thing of concernment) next obſerve the deeper and more remarkable Shadows, and with the ſame faint Crimſon Colour of Lake and white, give ſome ſlight touches and marks ſomewhat roughly of theſe Shadows, which afterwards you'l finiſh.

The Order to be obſerved in drawing by the Life.

The Order of Drawing. Firſt Sitting] Firſt you muſt only dead-Colour the Face, as the oyl-Painters do, and not meddle with the reſt, and this firſt Sitting commonly takes up two hours.

Second Sitting] The ſecond Sitting will require four or five hours, in that time you are to go over the Face very curiouſly, obſerving whatever may conduce either to likeneſs, or judicious Colouring, and obſervation of the ſeveral graces, beauties, or deformities, as they appear in Nature, or elſe in ſmoothneſs of Shadows, or cloſe and ſweet Couching the Colours.

Third Sitting] The third Sitting is two or three hours work, and is ſpent in cloſeing what was before left imperfect and rough; but principally in diveing to every deep Shadow, the ſtrong touches and deepenings as well in the dark Shadows in the Face, as in the Eyes, Eyebrows, Hair, and Ears, and theſe touches are ever the laſt part of this buſineſs, and are never to be done till all the Hair and Drapery be finiſht; theſe touches (if well done) adde exceedingly to the life.

Concerning

Concerning dead-Colouring.

The dead-Colouring of a Face is to be done the rougheſt and boldeſt of all; having drawn your Face with Lake and white (as before) you muſt take to the ſaid Colour a little red Lead, tempering it to the Colour of the Cheeks, Lips, *&c.* but very faintly, becauſe you cannot lighten a deep Colour, without hazard of ſpoiling the Picture.

To begin to Paint] The firſt Colour to begin the Face with is the red of the Cheeks, and Lips, ſomewhat ſtrongly, the bottome of the Chin, if the Party be beardleſs; over under and about the Eyes, you will perceive a delicate and faint redneſs, and underneath the Eyes, inclineing to purple Colour, which in fair and beautifull Faces is uſuall, and muſt be obſerved; the tip of the Ear and the roots of the Hair are commonly of the ſame Colour.

All this you muſt do after the manner of Hatching, with faint and gentle Stroaks, waſhing it all along. In ſhort, in your dead-Colouring you muſt cover your ground with the aforeſaid red, and the ſubſequent Shadows.

Note] Be not too curious in your firſt working, but regard a good bold following of Nature, rather then ſmooth Curioſity, the roughneſs of the Colour you may end at another Sitting.

The ſecond Work of Painting.

The ſecond Procedure] The red being done, the next is the faint blewes about the corners and balls of the Eyes, and the gray and blewiſh under the Eyes, the Temples, *&c.* which you are alſo to work from the uppermoſt part of the Face almoſt all over, but exceeding ſweet and faint, by degrees ſweetening and heightening your Shadows, as the Light falls. And in going over the Face, be ſure to mark out the hard Shadows in the dark ſide of the Face, under the Noſe, Chin, Eyebrows, *&c.* as the Light falls, and ſomewhat ſtrong touches in thoſe places. Bring up your work together in an equall roundneſs, not giving perfection to any particular part of the Face, but viſiting all the parts curiouſly,

curiouſly, and in a kinde of randome, by which meanes you will better obſerve the likeneſs, roundneſs, poſtures, Colouring, or whatever elſe is requiſite to the perfection of your work.

The third Procedure] Having done the fainter or ſlighter Shades, and ſomewhat ſmoothed and wrought them into the red, you may go over the Hair, diſpoſing into ſuch Forms, Folds, or Tramels, as may become your Picture beſt.

You muſt at firſt only draw them with Colour as near as you can ſutable to the life, and after waſh them lightly at the firſt, and then once more peruſe your work, being carefull to fill up the void empty and bare places which are uncovered with Colour, and at laſt deepen it ſomewhat more ſtrongly then before in the deepeſt ſhady places, ſtill carefully obſerving the life. Thus much for the firſt Sitting.

The Order of Painting in the ſecond Sitting.

The Party being ſet juſt in his former ſeat, you muſt moſt exactly obſerve and curiouſly delineate with your Pencil, thoſe ſeveral varieties of Nature, which you did rudely ſcore out before. To do this you muſt uſe the ſame Colour in the ſame places you did before, working, driving, and ſweetening the ſame Colours one into another, to the end that nothing be left in your work with a hard edge, uneven, or a lump together, but all ſo ſwept and driven one into another, with the point of ſomewhat a ſharper Pencil then you uſed at firſt as that your Shadows may lie ſoft and ſmooth, being diſperſed and gently extended into all, and towards the lighter parts of the Face, like air or a vapoury ſmoak; but before this you muſt carefully obſerve all the Shadows and Colours.

The ground behind the Picture] For the ground behind the Picture, it is commonly blew or crimſon, ſomewhat like a Satin or red Velvet Curtain: If blew you muſt lay it thus; your Biſe being pure and clear waſht, temper as much in a ſhell as will cover a Card, let it be all throughly moiſt and well bound with Gum, then with a ſmall Pencil go about with the ſame Colour the Porphile, that is the utmoſt Stroak, and ambient Superficies of the Picture; this done take a greater Pencil, and therewith

with wash over somewhat carefully the whole ground that you mean to cover with a blew, somewhat thin and watrish, and then with a reasonable big Pencil full of Colour and flowing, lay over that place with a thick and substantial body of Colour, which before you had only washt over. In the doing of this you must be very swift, keeping the Colour moist that you have laid, not permitting any part to dry till the whole be covered.

A Crimson Ground] If you would have your ground Crimson like Satin, you must with India-Lake mark out where and in what places you will have these strong and hard Lights and Reflections to fall, which is seen in Satin or Velvet, there lay your Lights with a thin and watrish Lake, and while it is yet wet with a stronger and darker Colour of Lake thick ground, lay the deepning and hard strong Shadows close by the other lights; your best way is to have a piece of Satin before you to imitate.

For Method in the Touches] After this lay your linnen with a flat white, and the Drapery likewise flat, then go over your Face again, endeavouring to reduce each Shadow to its true perfection, then draw the Lines of the Eye-lids, expressing the red dark Nostril, the shadowy entrance into the Ears, the deepness of the Eye-brows, and those more perspicuous notes and marks in the Face, with a Pencil somewhat more curious and sharp then before; you may darken your ground as you see it will be most advantagious to the setting out the Picture.

The Hair] Next go over your Hair, heightning and deepning it as you shall see by the life, drawing some Locks loosely over the ground, which would otherwise seem unpleasant.

Linnen Shade] To shadow Linnen use black, white, a little yellow, and less blew; the black must be deepned with Ivory-black, with which mix a little Lake, and Indico, or Litmus-blew. Thus much for the second Sitting.

The Manner of Finishing at the third Sitting.

Third Sitting] The third will be wholly spent in giving the strong Touches and Observations ne-

ceſſary for the rounding of a Face, which you will now better ſee to do, the Apparel, Hair, and Ground, being already finiſhed. In this Sitting curiouſly obſerve whatever may conduce to ſimilitude, which is the chiefeſt thing, as Scars, Moles, *&c.* glances of the Eyes, deſcending and circumflexions of the Mouth; never make your deepeſt Shadows ſo deep as they appear in the life.

Thus much of the Face and three Sittings: For Ornaments thus.

Ornament. Armour-Silver] For Colouring Armour, firſt lay liquid Silver flat and even, which dryed and burniſht with a Tooth, temper the Shadows with Silver, Indico, Litmus, and a little Umber, work theſe Shadows on the Silver as directed by the life.

Gold Armour] For the Gold Armour, lay Gold as you did Silver, for the Shadow, Lake, Engliſh Ocur, tempered with a little Gold.

Pearls] To expreſs the roundneſs and luſtre of Pearls, your ground muſt be white, and Indico, your Shadow black, and Pink.

Diamonds] Diamonds are expreſt with a ground of flat liquid Silver, the deepening is Cherriſtone, black, and Ivory; the deeper the Shadow, the fairer the Diamond.

Rubies] Lay a ground of Silver, burniſh it to the bigneſs of the Rubie, then take Turpentine of the beſt and pureſt, and temper with it very neat a little India-Lake, then taking a Needle or ſome ſmall iron Inſtrument heated in a Candle, lay or drop a little of the Compoſition upon the Silver, faſhioning the Stone in a round or ſquare, or what faſhion you pleaſe with the point of your Inſtruments, you muſt let it lye a day or two to dry; if it be too long in drying, adde to your other Compoſition a little powder of clarified Maſtick; this Receipt is not commonly known.

Emeraulds] For any green Stone, temper your Turpentine with Verdigreaſe, and a little Turmerick root firſt ſcraped with Vinegar, then let it dry, then grinde it to fine powder and temper it.

Saphires] Mix Turpentine with Ultra Marine, *&c.*

Note

Note that the ground to all muſt be liquid Silver poliſht.

A true Receipt to make liquid Gold.

Liquid Gold] Take of fine leaf Gold the value of 2ˢ—6ᵈ, grinde this Gold with a ſtrong and thick Gum water upon a reaſonable large ſtone, which you muſt grinde very fine and painfully; as you grinde it ſtill adde more of your ſtrong Gum water, and though the Gold look never ſo black and dirty, 'tis never the worſe; having brought it to a competent fineneſs, waſh it in a great ſhell as you did Biſe, *&c.* being very clean adde to it a little quantity of Mercury ſublimate, with the point of your Knife which you muſt temper with it, and a very little Gum to binde it in the ſhell, and as it ſettles and begins to dry in the ſhell, ſhake it together, and remove and ſpread the Gold about the ſides of the ſhell, that it may be altogether of one Colour and fineneſs, uſe it with fair water as you do the other Colours.

Note] So for liquid Silver, only obſerve (and 'tis a Secret) that when your Silver either with long keeping or moiſtneſs of the air becomes ſtarvd and ruſty, you muſt to prevent this inconveniency, before you lay the Silver Cover over the place with a little juice of Garlick, which will preſerve it.

Landskip.

Landskip] In painting Landskip ever begin with the Skie, and if there be any Sun-beams, do them firſt.

Purple Clouds] For the purple Clouds, only mingle Lake and white.

Yellow] The yellow Sun-beams, Maſticot and white.

Note 1.] Work your blew Skie with Smalt only.

Note 2.] At your firſt working dead-Colour all the Piece over, leave nothing uncovered, lay the Colour ſmooth and even.

Note 3.] Work the Sky down in the Horizon fainter and fainter as you Draw near the Earth, except in tempeſtuous Skies, work your further Mountaines ſo that they ſhould ſeem to be loſt in the Aire.

Note 4.] Your firſt Ground muſt be of the colour of the earth and dark; yellowiſh, brown, green, the next ſucceſſively as they looſe in their diſtance muſt alſo faint and abate in their colours.

Note 5.] Beware of perfection at a diſtance.

Note 6.] Ever place light againſt dark, and dark againſt light [that is] that the only way to extend the Proſpect far off, is by oppoſing light to ſhadows, yet ſo as ever they muſt looſe their force and vigor in proportion as they remove from the eye, and the ſtrongeſt ſhadow ever neareſt hand.

Dark green

For a dark green for Trees, mingle blew Verdure, Pink, and Indico; the deepeſt ſhadowes of all in green are made with ſap green and Indico.

A rare Secret to preſerve colours.

Take Roſemary Water diſtilled, and with a few drops of it, temper your ſhell of White, and you ſhall ſee it become inſtantly perfect White, how ever dead and faded it was before. Beſides this Water allayes the bubbles in White and Umber, which are uſually very troubleſome in the Grounding them.

Some generall Obſervations in Miniature.

1. If your Colours peel or by reaſon of the greaſineſs of your Parchment will not lye on; mix with them a very little Ear-Wax, and 'twill help them.
2. Sit not above two yards from him you Draw by.
3. Draw not any part in the Face of a Picture exactly at firſt, neither finiſh a Mouth, Eye, or Noſe, till

till the reſt of your work come up, and be wrought together with it.

4. When you have finiſhed the Face, make the Party ſtand up to Draw the Drapery by him.

5. Let the Party you Draw be ſet in an higher Seat then your ſelf that Draw.

To make Crayons or Paſtils and Draw with them.

Paſtils.] To inſtance one for all, if you were to make a Paſtill for a brown Complexion, grind on your Stone, Cereus, red Lead, or Virmilion, Engliſh Ocre, and a little Pink, to this add a proportionable quantity of Plaiſter of *Paris* burnt and finely ſifted, mix this with the other Colours and you may role it up.

Note.] Mix white Cereus with all your other colours.

To uſe theſe Paſtils, Colour the Paper whereon you mean to Draw with a Carnation or fleſh Colour, with a wet Spunge Draw the out-lines faintly with red Chalk, then rub in the Paſtils, finiſh and fill up all with black Chalk as you ſhall ſee occaſion.

To make white.

Cereus.] Take two parts of ordinary Chalk, and one part of Allum, grind theſe together fine, make them up in a lump, burn them in a Crucible and uſe them.

To make white Lead.

White Lead.] Take a Gallypot, whereinto put ſeverall ſmall plates of clean Lead, cover them with white Wine Vinegar, cover the Pot, and dig an hole in a Cellar, where let it abide for the ſpace of ſix Weeks; take it up, and ſcrape off the White Lead from the plates.

To prepare a Card for a Picture.

Wet a Card all over with a great Pencill ſo ſoon as the water is ſunk in burniſh it ſmooth on the backſide, having beaten ſome Starch with a Knife in your hands palme ſpread it over, inſtantly lay on a piece of abortive Parchment, let it be preſt in a book till it be almoſt dry, then ſmooth it on the backſide.

To preſerve Colours freſh, ſome grind them with the Gall of a Neate.

To prepare White excellently.

White.] Take ſome *Cereus* which being groſly bruiſed and put into a fine earthen Baſen, put to it a good quantity of running Water diſtilled, wherein waſh the Cereus till it be throughly clean and purged, which you ſhall know by the taſte of the Water which is drained from thence.

Verniſh.] Verniſh is made thus, Take of Oyl of Turpentine one pound, Sandrake one pound, Oyl of Spike one pound, mix the Oyles together, and let all ſtand over the fire till the Sandrake be reſolved: if the fire ſhould chance to catch hold of this, clap a Pewter Diſh over it.

Concerning Wax work or Moulding.

To make the Moulds.

The Mould.] Take a good big lump of Plaiſter of *Paris* and burne it in a Crucible till it be red hot, let it coole, then beat it very fine, and ſearſe it through a Tiffany Sieve; be very cautious that the Wind come not at it, for that will hinder its hardening: after it be tempred keep it wrapt up in a cleane brown Paper. Uſe it thus, Take any Earthen or Pewter Veſſel that is ſhallow, and put ten or twelve ſpoonfulls of fair Water in it, then prepare your fruit, and bind a Ragg round it like a Cord in a wreath long wayes on the fruite: then take ſome Linſeed Oyl, or (which is the more cleanly) Oyl of ſweet Almonds, with which in a Pencill beſmeare the Lemmon or (what other fruit it be) on one

ſide

ſide, which lay upermoſt: your Lemmon thus prepared, take up ſome of your ſifted Plaiſter of *Paris* and temper it in the forementioned Water to a pretty thickneſs, then as ſpeedily as may be with the help of your Spoon caſt it on the Oyled Lemmon, lay it on very thick, leaſt the thinneſs of the Mould ſpoile the work, when 'tis hardned (which will be in a ſmall time) take away your Ragg, leaving the Linnen ſtill faſt in its half Mould; Which done, turne the hardned ſide downward, then Oyl the other half of the Lemmon together, with the edges of the Mould, which the Ragg did cover; then waſh your Poringer or Veſſel where the former Plaiſter was clean and prepared, and caſt on more Plaiſter of *Paris* as before; obſerve it muſt not be too thick when you caſt it on, and after 'tis hardned, you muſt put no more water to it, for then it will crumble; when you have done the Moulds ſo, and made a notch that one may fall fitly into the other, tye them cloſe together having before well Oyled them, and keep them for uſe.

To Caſt in theſe Moulds.

To Caſt.] Uſe the whiteſt and pureſt Virgins Wax.

To colour the Wax anſwerable to the things you Mould.

To colour.] For a Raddiſh your Ground is Cereus, which muſt be afterwards Painted over with Lake, the top of the Raddiſh Painted with Verdigreaſe, all other ſuch Colours muſt be tempered with Gum-Water. Gum-Water is thus made, Diſolve a lump of clear Gum Arabick about the bigneſs of a Wallnut in two ſpoonfuls of fair Water, herewith temper your Colours.

Note that every thing Mouldable is either all of one and the ſame colour, as (a Lemmon,) or ſtriped, and particoloured with different colours, as a Pare, Paremaine, *&c.* Now ſuch as are of one colour may be eaſily caſt all of the ſame colour; but ſuch as are variegated muſt be kept out afterwards by colours tempered with Gum-Water, (as above,) you colour your Wax by putting into it whilſt it is hot and melted in a Gallypot, a little Linnen Bag of that colour you uſe, provided that the colour be before bruiſed very fine.

As

As to particulars, for the Lemmons or Apricocks, take only Turmerick in a Bag; for Oranges, Turmerick and red Lead well tempered; Apples, Peares, or Grapes, Turmerick and a little Verdigreaſe; mixt Wallnuts and Figs, Turmerick and *Engliſh* Ocre, and Umber all in a bag together; Cucumbers, or Hartichoakes, Peaſecods, or Filbirds, Turmerick, Verdigreaſe, Eggs, and Cerus, all put in ſeverall Bagges, and ſteept in the Virgin Wax when 'tis melting as before mentioned; for Damſons, bruiſe Charchoale, Indico, and blew Starch in a Bag together; for fleſh colour, White Lead, and Vermilion mixt, *&c.*

To counterfit Rochcand'd Sweetmeates.

Rochcandy.] Diſolve the quantity of a Wallnut of Gum Arabick in two ſpoonfuls of clear Water, let it be very thick, then take any piece of broken *Venice* Glaſs, the thicker the better, beat it in a Mortar ſo ſmall as you pleaſe; that it may ſerve your occaſion, daub over ſome caſt Sweetmeats with the forementioned Gum-Water, ſtrew this Pouder on them, and 'twill with much delight ſatisfie the expectation.

Additionall Obſervations out of a Manuſcript of Mr. Hilliards *touching Miniature.*

When you begin to Paint temper all your colours afreſh with your finger, in your ſhell, or on your pallat.

Pearle.

Your Pearl muſt be laid with a White mixture, with a little black, a little Indico and Maſtick, but very little in compariſon of the White, not to the hundredth part; that dry, give the light of the Pearle with a little Silver, ſomewhat more to the light then the ſhadowed ſide, then take a White allaid with Maſticot, and underneath the ſhadowed ſide give it a compaſſing ſtroake, which ſhews a reflection, then without that a ſmall ſhadow of Sea Cole undermoſt of all. But Note, your Silver muſt be laid round and full.

The

The Grounds and Rules of Etching.

BEfore that you begin to Etch upon Copper, it is very neceſſary to practiſe the Art of Drawing, till you be able if need require to Draw any Head after the Life, or to Draw a deſigne; Therefore if you intend to practiſe the Art of Etching, you will find it very profitable to Draw after good Prints, which are well deſigned and Graved, and when you have practiſed ſo long that you are able to Coppy any Print, or Drawing very exactly; then Draw after good Heads of Plaiſter or Figures, according to your own fancy, which will learn you to ſhadow according to Art, if well obſerved; therefore be ſure when you Draw after Plaiſter, to obſerve very exactly to take the true out-lines or circumferences, and then take notice how the ſhadow falls, then ſhadow it very faint and ſoft, where need requires accordingly. The Prints which I recommend unto you as abſolutely the beſt to learne to Etch after, be the Prints of *Henry Goldſhis* and *Hermon Muller*. Therefore it is very convenient to learn to hatch with the Pen exactly after either of the aforeſaid Prints of *Goldſhis* or *Muller*; and when you have brought it to that perfection, and can Draw very well after Plaiſter, you may practiſe to Draw after the Life; but before you Draw after the Life, you muſt be very exact and true in your out-lines or circumferences.

The Inſtruments with their particular names which are uſed to Etch withall.

A Copper plate poliſhed, a piece of Ground bound up in a piece of Silk or Taffety, and preſerved from any duſt or greaſe; and about twenty Needles of all ſizes, the beſt are made at *Cleaſe*; then take the Needles and ſet them indifferent deep into ſome round ſlender ſticks about a ſpan long, with a Needle at one of the Sticks, and a Pencill at the other, a ſcraper, a poliſher; and two or three good

French Gravers, well ground and whetted, and a pair of Compaſſes, a Ruler, ſome green Wax, a Bottle which holdeth ſome halfe a pound, offingle *Aqua fortis* ſtopped cloſe with ſoft Wax, ſome white Lead, a Stift, a hand Vice to hold the Plate over the fire, an Oyl-ſtone.

The uſe and property of every particular Inſtrument.

The Copper Plate is the only Object to Etch upon; the Ground is to lay upon the Copper Plate, when they are both warmed; your Needles are to Hatch withall upon the Ground; the Pencill is to wipe away the bits of Ground, which riſe when you Hatch upon the Ground with your Needles; the Scraper is to ſcrape out any thing that is amiſs; the Poliſher is to make ſmooth any place that is rough, ſo that you can mend any place that is amiſs according to your own mind; the Gravers are to mend here and there a ſtroake where need requires. But Note, That your Gravers muſt be ground and whet very ſharp and ſmooth upon an Oyl ſtone before you uſe them. Your Compaſſes are of very little uſe in Etching, except it be to meaſure a diſtance, or ſtrike a Circle. The Ruler is uſed to Hatch all the ſtraight Hatches or Lines upon the Plate. The green Wax is uſed to make a Wall round about the edges of your Plate, to keep the *Aqua fortis* from runing off from the Plate. The *Aqua fortis* is the finiſher of the work, when you have Hatched the deſigne upon the Plate with your Needles. The white Lead is uſed to ſcrape upon the backſide of the Drawing or Print that you Etch after. The Stift is uſed to Draw thorow all the outmoſt Lines or circumferences of the Print or Drawing which you Etch after. The Oyl ſtone is to whet your Gravers upon. Having theſe things in readineſs, Note, that if it be a black Ground that lies upon the Plate, then you muſt take white Lead and rub it upon the backſide of the Print or Drawing which you intend to Etch after; but if it be a white Ground, then you muſt take black Lead, or a piece of Charchoale, and rub on the back of your Print as aforeſaid.

The manner and way to make the Ground.

Take a quarter of a pound of Virgins Wax, and half a quarter of a pound of Expoltum burnt, of Amber one ounce, of Maſtick one ounce. Having all theſe Materials in readineſs, you muſt take the Maſtick and the Expoltum and beat them very fine in a Mortar; this being done, take a new earthen Pot, and put the Wax into it, and ſet it upon the fire till it be juſt melted; then take the Maſtick and the Expoltum and ſhake them in by degrees, ſtirring the Wax about till they be throughly mingled with the Wax; but let it not ſtand too long over the fire, nor let the fire be too hot, which if you do it will burn the Ground; therefore when they are throughly melted, take it off from the fire, and poure the Ground out into a Pot of fair Water, and make it up into a Ball and preſerve it from duſt; and when you will uſe it, take a quantity of it and bind it up in a piece of Taffity or Silk, and uſe it as hereafter.

Etching.

A red Ground.

Grind red Lead very well tempered with Vernix.

A white Ground.

Take of Wax one ounce, Roſin two ounces, melt them together, add thereto a quarter of an ounce of *Venice* Cereus finely ground.

A black Ground.

Spaltum.] Aſphaltum two parts, Bees Wax one part, melt them together, being warme, lay it thinly on with a Lawne ragg.

Another Ground.

Grind red Lead with Linſeed Oyl; *Note*, your Ground muſt be laid very thin.

The manner and way to lay the Ground upon the Plate.

Take ſome Charcole and kindle them, this being done, take the hand and ſcrew it faſt to one of the corners of the Plate, as near to the edge as you can, becauſe you muſt lay the Ground all over the Plate; then take the Plate and hold it over the fire, till it be ſo warme to melt the Ground, then take the Ground which is bound up, and rub it to and fro upon the Plate till it be covered all over alike; then take one of the ſtiffeſt Feathers out of a Ducks Wing that is not ruffled, and ſpread the Ground very thin, and ſmooth every where alike upon the Plate; but have a ſpeciall care you heate not the Plate too hot, leaſt you burne the Ground; which if it be, the Ground will break up when you put on the *Aqua fortis* and ſpoile the Plate; you may diſcover when it is burnt, by itsriſing ſandy, which if you perceive, you muſt take a clean Linnen ragg, and warming the Plate, wipe the Ground cleane off, and lay a new as aforeſaid. But if you perceive the Ground to be ſmooth and not ſandy, take it off from the fire, and when it is cold, take a piece of Link and hold under the Ground till you have ſmoaked it very black, but let not the flame touch the Ground, leaſt you burn it; this being done, if the Plate be cold hold it over the fire again till it be juſt warme, to let the ſmoake melt into the Ground, that it may not rub off under your hand; then hold it off from the fire with the Ground-ſide of the Platedownwards for to preſerve it from the duſt, otherwiſe when the Ground is warme, duſt will flye therein and ſpoile it, therefore you muſt hold it with the Ground-ſide downwards untill the Ground is cold.

The way to Draw the outmoſt Lines of any Print or Drawing upon the Ground of the Plate.

First take the Drawing or Print which you intend to Etch after, and ſcrape a little white Lead upon

on the backſide of it, then take a Feather and rub it over every where alike, and ſhake off that which remaines, then take the Print and lay it upon the Plate on that ſide the Ground is, then faſten the four corners of the Print to the Plate with a little ſoft Wax; this being done, take the Stift and Draw upon the Print all the outmoſt circumferences and Lines exactly, and when you have ſo done, take off the Print from the Plate, and all the ſame out-lines and circumferences which you Drew upon the Print with the Stift, will be exactly and unfailably upon the Ground.

Severall Obſervations in Hatching.

Firſt obſerve exactly and judiciouſly how your principle is ſhadowed, and how cloſe the Hatches joyn, and how they are laid, and which way the light falleth or cometh; the light muſt fall all one way, for if the light fall ſide wayes in your Print, you muſt Hatch the other ſide which is furtheſt from the light darkeſt, and ſo place your lights altogether on the one ſide, and not confuſedly to have the light come on both ſides alike, as if it ſtood in the midſt of many lights; for neither doth the light with all its brightneſs illuminate any more then that part that is directly oppoſite unto it. Then obſerve exactly how cloſe all the Hatches joyn, and how they are laid, and which way they twiſt and wind : then follow them as exactly as poſſibly you can, but before that you begin to Hatch or Shadow, you muſt Draw all the outmoſt Lines with a Needle upon the Ground, as Artificially as you can, and then you muſt Shadow it with your Needles of ſeverall ſorts according to your principle; and when you will make a broad ſtroake, then break off the point of a great Needle and whet it upon an Oyl ſtone four ſquare untill it comes to a point; and if you will Hatch five ſtroakes, then you muſt uſe five pointed Needles; and if middle ſize, then break off the point of a middle ſize Needle and whett it as beforeſaid, and ſo according to all ſizes. But ſome Maſters when they make a bold ſtroake Hatch it fine at firſt, and ſo by degrees make them broader.

Neceſſary Obſervations in Etching Landskips.

Obſerve when you Etch Landskips, to make or hatch that which is neareſt to the Eye darkeſt, and ſo let it loſe or decline its Shadows by degrees, and that which is furtheſt off muſt be fainteſt, and ſo loſe equally by degrees; the ſame obſervation muſt be in making the Skie, for that which is neareſt to the Eye muſt be the darkeſt ſhadowed, but in general as faint and ſoft as poſſible; and ſo alſo let it loſe by degrees as before is mentioned, and the nearer the Skie cometh to the ground, the more it muſt loſe and be fainter; but when they as it were meet together, the Skie muſt quite be loſt; and when you have hatched it as exactly as you can poſſibly with your Needles, according to the print of Drawing that you do it after; this being done, compare them exactly and judicially together, and if you finde it like the original, take ſome green ſoft Wax and make a wall round about the edges of the Plate.

How to make the Wax wall round about the Plate, to keep the Aqua fortis from running off from it.

Take ſome green ſoft Wax and temper it till it be warm, then draw it into a long ſlender role as long as will reach about the Plate, then flat it and faſten it about the edges of the Plate, and let it be about half an inch high; then take an old Knife and heat it in the fire, and ſear the Wax round about under the Plate very cloſe, otherwiſe the Aqua fortis will run out; but be ſure to faſten the wall as near to the edges of the Plate as you can conveniently; then pour the Aqua fortis upon the Plate, letting it lie till it be deep enough.

How to uſe the Aqua fortis on the Plate.

You muſt uſe ſingle Aqua fortis. Take a quantity of Aqua fortis and pour it into a Glaſs, and mingle it with a little Vinegar to weaken it, if it be too ſtrong, or a little Aqua fortis which hath been

been uſed before; for in caſe the Aqua fortis work too ſtrong, it will make the work very hard, and ſometimes make the ground to break up; and when you have tempered it very well, pour it upon the Plate almoſt as high as the Wax wall; the deeper the Aqua fortis lieth, the harder it will eat, and when you perceive it to be deep enough, pour off the Aqua fortis from the Plate into a Glaſs, and preſerve it to mingle with other as aforeſaid; this being done, take ſome fair water and waſh the Plate, and then take off the Wax wall and preſerve it for the ſame uſe again; then warm the Plate, and take a clean linnen Rag when it is indifferent warm, and rub off the ground from the Plate very clean; then take ſome Oyl and rub over the Plate to clean it, and if you perceive that the Aqua fortis hath not eaten as deep in ſome places as it ſhould be, then it muſt be helped with a Graver.

Obſervations by which you may know when it is deep enough.

When the Aqua fortis hath layn upon the Plate a little more then a quarter of an hour, or half an hour; there being no certainty in time, becauſe ſometimes the Aqua fortis will work ſtronger then at other; therefore when you think it is deep enough, pour off the Aqua fortis from the Plate into a Glaſs, then waſh the Plate with a little fair water, then take a Knife and ſcrape off a little piece of the ground where it is hatcht, and may be leaſt prejudicial to the Plate, and if you perceive it to be deep enough; warm the Plate and rub the ground off as before-written; but if you finde it not deep enough, take a little Candle-tallow and melt it in a Spoon, and while it is warm take a Penſil and cover the place with it where you ſcraped the ground off, then pour the Aqua fortis upon it again, and let it lie till you gueſſe it to be deep enough; then pour the Aqua fortis from the Plate as aforeſaid, and at any time when you perceive that the Aqua fortis doth not work ſtrong enough, you pour off half the old, and refreſh it with ſome new, for when the Aqua fortis hath been upon the Plate about half an hour, it will be much the weaker, becauſe the ſtrength of it doth evaporate away, and by a little practice you will come to the certain knowledge when the Aqua fortis hath eaten deep enough.

Another

Another way to know when it is deep enough.

Take a little piece of a Copper plate, and lay a ground upon it as you have been ſhewed before, and make a wax wall about it, then hatch it with ſeveral hatches as you think beſt, and when you pour the Aqua fortis upon the one, pour it upon the other, and when you think they be eaten deep enough, pour the Aqua fortis from the little Plate, and waſh it with ſome fair water as aforeſaid, then take a Knife and ſcrape off a little piece of the ground from the little Plate where it is hatcht, and in caſe you perceive it not deep enough, cover the place again with ſome warm Candle-tallow, and then pour the Aqua fortis upon it again till you gueſſe it to be enough; then pour the Aqua fortis from the little Plate again and try as before, and if you ſee it to be enough, pour the Aqua fortis from the great Plate, and waſh it with a little fair water before you warm it, or elſe the Aqua fortis will ſtain the Plate.

A way to lay a white Ground upon a black.

Firſt you muſt underſtand that moſt grounds are black, and when you lay a white ground upon a black you muſt not ſmoak the black with a Link, and you muſt lay the undermoſt ground the thinner, when you lay a white ground upon it; and if you would lay a white ground upon a black, take a quantity of Surice, as much as you think will cover the Plate, and grinde it very fine with Gum water, and temper it very thinne, then take a Pencil and waſh the Plate all over very thinne and even.

The way to lay a red Ground upon a black Ground.

Take red Chalk and grinde it very fine with Gum water, then take a pretty big Pencil, and waſh the Plate all over with the red ground very thinne and ſmooth, as before is mentioned.

A Receipt for a Ground taken out of a Manuſcript of Collots.

Take a quarter of a pound of Virgins wax, and half a quarter of a pound of the beſt Expoltum burnt of Amber, and half a quarter of a pound of Maſtick if it be warm weather, becauſe it doth harden the ground and preſerve it from injury, when you lean with your hand hard upon it; if it be cold weather, then take but an ounce of Maſtick; this being obſerved, then take an ounce of Roſin, and an ounce of Shoomakers Pitch, and half an ounce of other Pitch, half an ounce of Verniſh: having all theſe materials in readineſs, take a new earthen Pot, and put the Virgins wax into it, and when it is melted ſtir it about, and put in the other materials by degrees as before-mentioned, and when they are throughly mingled and melted, take the Pot off from the fire and pour it out in a clean Pot of fair water, and work it into a Ball, and preſerve it from duſt and greaſe, and when you have occaſion to make uſe of it, take a quantity thereof and binde it up in a piece of Silk, and make uſe of it as before-mentioned.

The Ground of Rinebrant of Rine.

Take half an ounce of Expoltum burnt of Amber one ounce, of Virgins Wax half an ounce, of Maſtick, then take the Maſtick and Expoltum, and beat them ſeverally very fine in a Mortar; this being done, take a new earthen Pot and ſet it upon a Charcole fire, then put the Virgins Wax into it and melt it, then ſhake into it the Maſtick and Expoltum by degrees, ſtirring the Wax about till they be throughly mingled, then pour it forth into fair water and make a Ball of it, and uſe it as before-mentioned, but be ſure you do not heat the Plate too hot when you lay the ground on it, and lay your black ground very thin, and the white ground upon it. This is the only way of Rinebrant.

The way to preſerve any Ground, which is laid upon a Plate in froſty weather.

Take the Plate and wrap it very warm in a woollen Cloth, and lay it in the warmeſt place you can convenient; for if the Froſt is got into the ground, it will break up, when you pour the Aqua fortis upon it.

A way to preſerve the Plate from injury of the Aqua fortis, where the Ground breaks up.

If you perceive the ground to break up in any place, pour off the Aqua fortis from the plate, and waſh it with a little fair water; then take a quantity of Candle-tallow, and melt it in a Spoon, and while it is warm, take a Pencil and cover the place which is broken up with the ſaid Tallow, and ſo far as the Tallow is ſpread, the Aqua fortis will not eat; ſome make uſe of Verniſh in ſtead of Tallow: and when you have covered the place that is broken, pour on the Aqua fortis again, and let it lie upon the Plate, till you gueſs it hath eaten enough; then pour the Aqua fortis from the Plate, and preſerve it, then take the Wax-wall and preſerve it alſo, and waſh the Plate with a little fair water, then rub off your ground as aforeſaid, and for the places which the ground broke up in, it muſt be helped with a Graver; therefore it will be neceſſary for one that deſireth to learn this Art, to practiſe Graveing a little, ſo much as to help a ſtroak where you think convenient.

A way to make the Aqua fortis eat ſoft or hard according to nature or Art.

Firſt take Candle-tallow, and melt it in a Spoon, then with a Pencil cover that place ſo far as you will have it to be faint, but note it to be after the Aqua fortis hath lain upon your Plate an indifferent while; and ſo by degrees you muſt uſe the Tallow as you would have it fainter; this is very neceſſary when you Etch Landskips, which muſt loſe and ſtand at a diſtance by degrees; therefore when you Etch Landskips, obſerve to ſtop off that place firſt which muſt be fainteſt, and ſo by degrees ſtop it off, and make it loſe equally; and note the nearer you come to the Eye, it muſt be ſtrongeſt

and

and darkeſt ſhaded, but not on that ſide from whence the light cometh, for that ſide muſt be preſerved as faint as may be; but according to Art.

Obſervations in Etching Proſpective.

Proſpective is a thing that is one of the difficulteſt Arts to be rightly underſtood, that is practiſed; becauſe it is not rightly underſtood, but by a good Arithmetick; otherwiſe you can never underſtand Proſpective, becauſe you can never gueſs rightly how much a Pillar, or a Figure, or the like muſt decline, or loſe at their ſeveral diſtances, according to Art and proportion: therefore when you Etch a piece of Proſpective after a Drawing or a Print, obſerve theſe Rules; beware of perfection at a diſtance; and be ſure to ſhadow that, which is neareſt to the Eye, perfecteſt and ſtrongeſt; and the further from the Eye, it muſt decline in length, and breadth, and heighth, according to Art and proportion; obſerve alſo to let it loſe and be fainter by equall degrees.

A way to grave any Hand or Letter upon a Copper Plate.

Take ſome Charcole and kindle them; then take a Hand-vice and ſcrew it to the corner of the Plate, and hold it over the fire till it be warm; then take a piece of Virgins Wax, and rub it all over the Plate, untill it is covered every where alike: this being done, take a ſtiff Feather of a Ducks wing that is not ruffled, and drive it even and ſmooth every where alike, and let it cool; then write the Hand or Letter which you intend to grave upon the Plate, on a piece of Paper, with ungum'd Ink; then take the Paper which you have written, and lay that ſide which is written, downwards next to the Wax, and faſten the four corners with a little ſoft Wax; but be ſure to place the writings ſo, that the Lines may run ſtraight; then you muſt take a Calves Tooth, and rub the Paper all over which is faſtened, and not miſs any place: this being done, take off the Paper from the Plate, and you ſhall ſee the very ſame Letters which you wrote on the Paper, hath left their perfect impreſſion upon the Wax; then take a Stift, and draw all the Letters through the Wax upon the Plate; and when

you have done that, warm the Plate, and take a linnen Rag and rub the Wax clean off, and you ſhall ſee all the Letters drawn upon the Copper; then get ſome good French Gravers, and grinde them as they ſhould be, very ſharp towards the points upon a Grindeſtone; and afterwards whet them very ſmooth and ſharp upon a good Oyl-ſtone; then grave the Letters with them.

The way to poliſh a Copper Plate.

At firſt you buy the Copper rough, then you have it pleniſhed, if you cannot do it your ſelf; and when it is pleniſhed, then you poliſh it with theſe following Inſtruments.

The Names of the Inſtruments or Tooles which are uſed to poliſh a Copper Plate.

A Plain which cuts very well, and of an indifferent bigneſs, but not broad; ſome pieces of Pumice-ſtones; ſome pieces of Sand-ſtones; and ſome Moulton-ſtones; a ſoft blew ſtone; and a Burniſher and Scraper; and ſome Charcole.

The uſe of every particular Tool or Inſtrument.

Firſt faſten your Plate with ſome ſmall Nails, to a place that is as high as your middle; then make uſe of the Plain to ſhave all the roughneſs off from it, and make it very even in all places alike; and if you perceive any crackles or little holes upon that ſide which you ſhave, then you muſt ſhave them all clean out; and when you have ſhaved it even and ſmooth with the Plain, then take a piece of Sand-ſtone, and wet the Plate with ſome water, and rub to and fro with the ſtone upon the Plate, till you have worn it very ſmooth and even every where alike; but be ſure to chooſe the ſo fteſt ſtones, becauſe they make the leaſt ſcratches: and when you have worn it even and ſmooth with this ſtone, waſh off the Sand from the Plate, and take a piece of Pumice-ſtone and rub to and fro upon the Plate, quite acroſs the grain of the former ſtone, becauſe it is of a hard ſandy nature, and will therefore leave ſome ſcratches; therefore the Pumice-ſtone is of a more ſofter and ſpungy nature, and is al-

waves

wayes uſed to wear out the former ſcratches: and when you have worn out all the former ſcratches, you will perceive the Plate to be worked into a finer grain; then waſh the Sand very clean off from the Plate: and then make uſe of the Moulton-ſtone, and work with it quite acroſs the grain of the Pumice-ſtone, untill you have worn it quite out; withall be ſure you ſupply this and all the other ſtones with water, when you work with them upon the Plate: and when you have worn out all the ſcratches of the Pumice-ſtone clean out; then for the fourth, make uſe of the ſoft blew ſtone, it being of a very ſoft grain, and ſofter then any of the former; then work with that quite acroſs the grain of the Moulton-ſtone, till all the grain is worn out; but if you perceive any ſcratches in the Plate here or there, rub them over with your Burniſher, till you have worked them out; but in caſe they are very deep, you muſt make uſe of your Scraper, and ſcrape them out, and burniſh it afterwards: this being done, in the fifth place you muſt burniſh it all over. Sixthly and laſtly, take a Charcole which is throughly burnt, and ſcrape off the Rine; then put it in the fire till it is throughly kindled; then take it out and quench it in Chamber-lee, and make uſe of it as of the former, till you have glazed the Plate; then waſh it very clean with fair water, and let it dry.

Rules of Proportion.

Of the Ear.

CHAP. I.

I Have obſerved this Rule, Firſt to treat of the Ear, in a manner of my ſelf invented, and not by any other diſcovered. Being then deſirous to forme the Ear by this way; you are firſt to deſcribe an Ovall, in ſuch manner as I have repreſented in this Figure, at the Number 1. but to forme that in more perfection, and as eaſily as poſſible may be therein, with ſuch Method and Order as I deſign. Proceed lightly joyning Stroak to Stroak, in that manner as in each of the ſequent Ovalls they are encreaſed, even unto the 8. Number. So imitate every Stroak of each Ovall, that the Ear may entirely be formed without digreſſing from the bounds, and reaſonable termes of the Art. This Rule ſerveth not only to forme the Ear in correſpondent proportion to Nature, but alſo with due proportion and perfection for every greater Head, without any reprehenſible Error; that is, without making that with too great length or breadth, hetrogeneal or diſproportioned. For Obſerving then the Rule, there will be no occaſion for the Spectator to ſay (as often it hapneth) that that was beyond reaſon, exorbitantly traced, and made without the bounds of reaſon.

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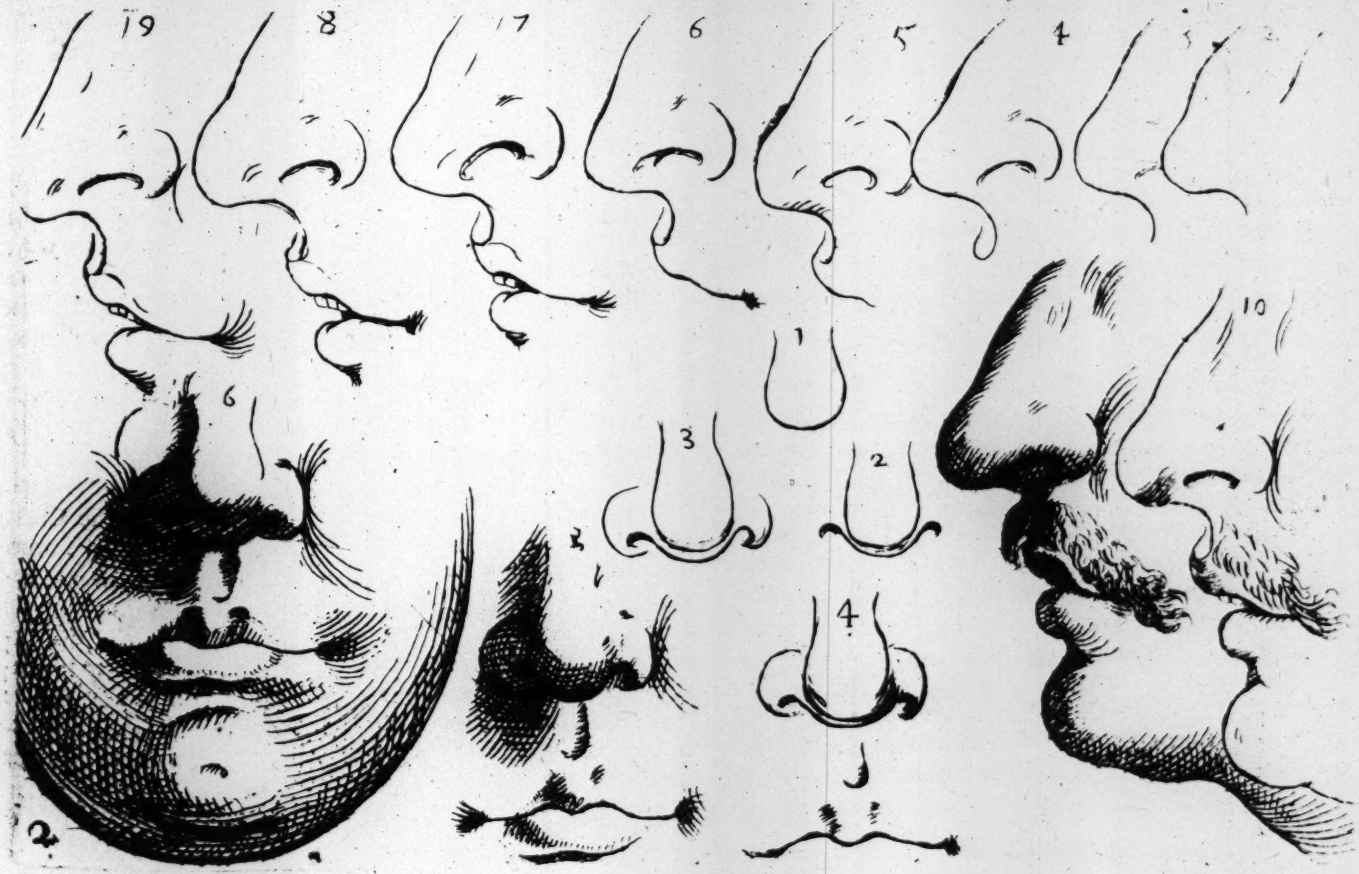
Of the Noſe, Mouth, and Beard.

CHAP. II.

FOraſmuch as I think that neceſſary, to make a brief Diſcourſe upon this next Figure, in which the Noſe, the Mouth, and the Beard is deſcribed, to give thereof certain general advertiſements; and that I may further define all the difficulties from point to point; the Noſe being known to be the moſt eminent part of the Face, and therefore firſt ſeen; and then the Eye which reſteth in the judgement, the next form of the Face: therefore I will demonſtrate two of the moſt eaſie wayes hath hitherto been invented, which may ſerve reaſonable capacities from Stroke to Stroke, to make the ſame well. Make then firſt a Stroke like that in the 1. Number, which hath the beginning of the hollowneſs of the Noſe: and then proceed to the 2. Stroke of the whole Noſe, with the roundneſs thereof: in the 3. the hole of the Noſtrills: in the 4. the Noſtrills themſelves: in the 5. the place of the upper Lip: in the 6. the upper Lip: in the 7. the form of the Mouth: in the 8. the roundneſs of the Beard: in the 9. the under-Throat: in the 10. the uniting of them all, with the Stroke of the finiſhing of the Noſe, the Mouth, and the Beard.

Deſcribe a ſemi-Circle downwards, which is in the 1. in the 2. make the holes of the Noſe, with the two Points on each ſide, and how each are placed: in the 3. the addition of the Noſtrills: in the 4. the forming of all the upper Lip: in the 5. the form of all the Mouth: in the 6. the finiſhing of all the Strokes of the Beard and Chin. This for frameing the Noſe is neceſſary to be explained, being of importance to deſcribe the ſame well; becauſe be the Head never ſo well done, the Mouth and it being not correſpondent, that will be but diſgracefull, and give great diſtaſt to any judicious beholder; be the other parts never ſo well and fairly done, that will reſt without grace and unworthy of commendations.

Of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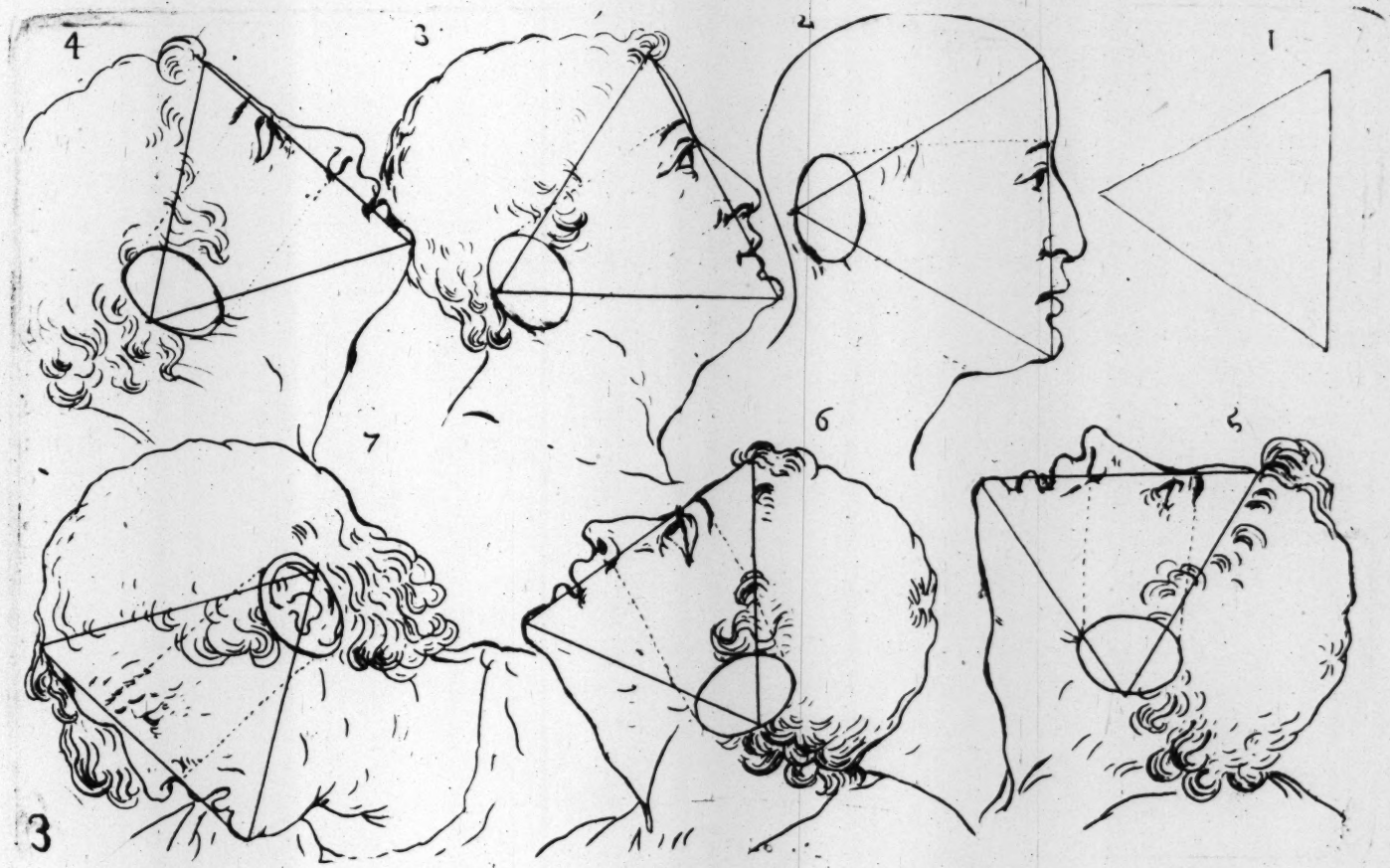
Of the Head upright, or with a Triangle.

CHAP. III.

THe manner to make the upright Head by juſt and ſafe Rules without errour, is thus: Firſt form a perfect equall Triangle ſo as you ſee, in what poſition you will, having a reſpect to the Draughts I have preſented with the Lines that form with the Compaſſes a juſt Equilaterall Triangle, which is with 3. Lines juſt and equall every way, turning the Triangle to make the Face upon one of the 3. ſides, be it which you will, either upwards, downwards, higher or lower, dividing that ſide into 3. equall parts, as in the ſequent Figure. The 1. to ſerve from the lower part of the Hair, to the lower part of the Forehead: The 2. thence, to the under part of the Noſtrills: The 3. to the lower part of the Chin. Now having framed theſe 3. Lines, as I have ſhewed Number 2d draw a little crooked Stroke with a Cole or Chalk out of the right Line, that that may reach to the other point, and that will form the Forehead, From whence draw a waved ſlope Line bending at the end, to form the Noſe either long, ſhort, groſs, or thin, as you would have that; ending that at the 2d point, where the Noſtrills end. Then ſubdivide the remaining 3d part in the midſt, where the Mouth ſhall be placed, for the parting of the upper and under-Lips. Then frame the Chin, having a reſpect to the perpendicular Line, that that fall not out of the middle of the Chin; adjoyning thereto the under-Chin down to the Throat-pit. So with the other two dividing Lines, the one from the top of the Forehead downwards (and ends in the midſt of the back part of the Ear;) the other proceedeth upwards from the Chin, aſcending till that meet with the ſuperior deſcending Line, whoſe interſection directeth the Ear, that the Circumference thereof ſtretch not too far; which in the firſt Chapter I formed by the Rule of the Circle. Thus with your judgement take the upper part of the Forehead, and come to deſcribe a great Circular Line about, to form with that the roundneſs of the Head, unto the Nape of the Neck, keeping the proportion that Nature teacheth; and from thence downwards frame the reſt of the Neck, remembring that the tip of the Ear doth not exceed the lower part of the Noſtrill. So you may have the Head in what poſition you will, ſo this abandon not the two other Lines; each concurring in their due points.

Of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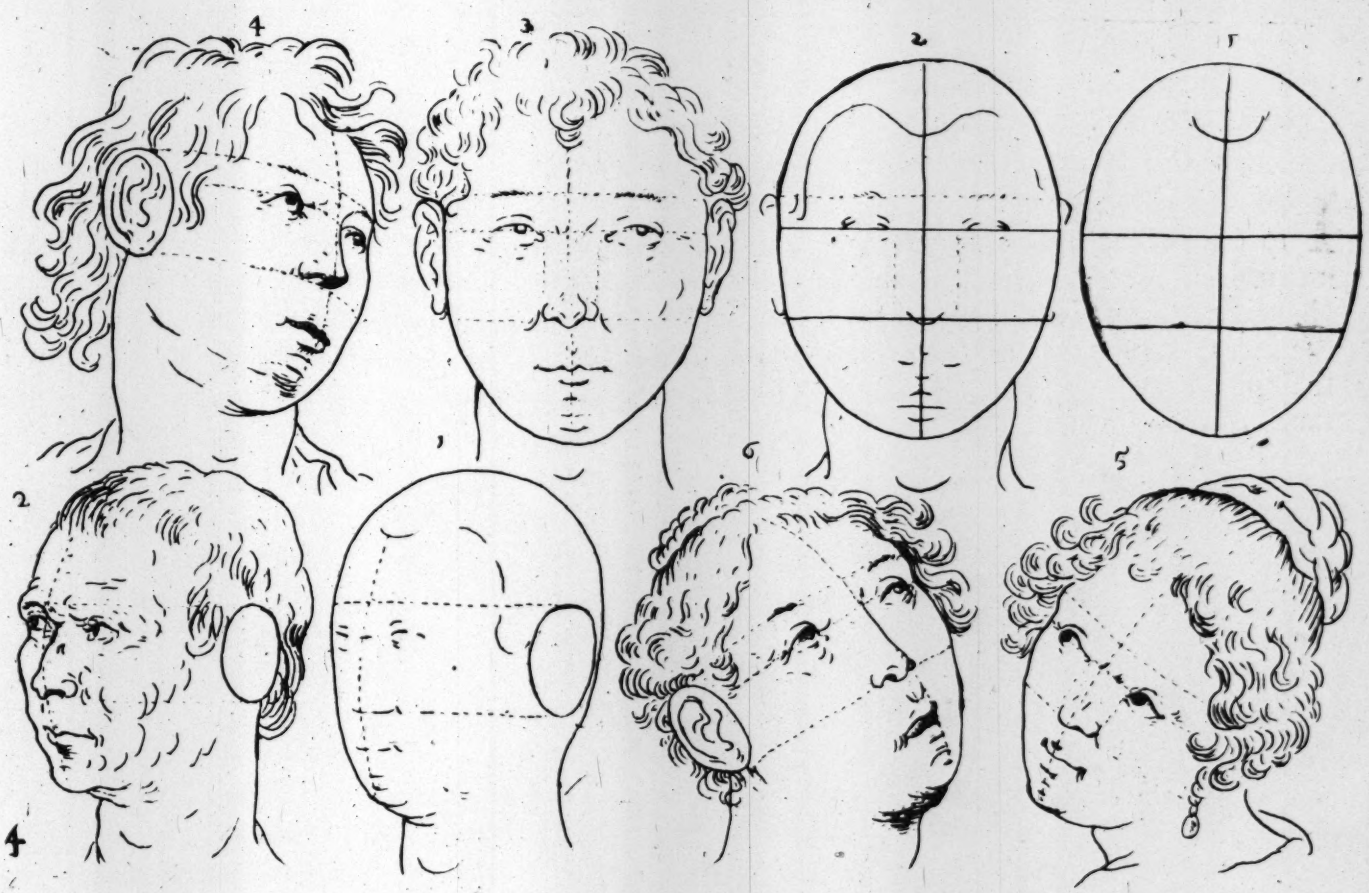
Of the Foreright, and other Poſitions of the Face.

CHAP. IV.

HAving demonſtrated an eaſie way how to draw the upright Head; it will be alſo neceſſary to ſhew the manner how to draw the foreright Face, and in other Poſitions. Being then deſirous to draw the foreright Face, it will be neceſſary to form a perfect Ovall, as I ſhewed in the Rule for drawing the Ear; which being made, divide in the midſt with a Line the longeſt way, which muſt from the lower part of the Hair be divided into 3. equall parts, by 2. Lines as you ſee. In the 1. is the Eyes to be placed; in the 2d the Noſtrils: then the lower part divided; in the midſt thereof muſt the Mouth be formed, as by the Figure may be conceived: alwayes remembring that the Eyes muſt be in the 1. Line; and each of them diſtant from the other, the length of one of them: and that their inner Corners be perpendicularly over the outſide of the Noſtrils punctually. But to make the Ears in a foreright Face, the Ovall muſt be exceeding narrow, yet proportional; that is, that the Ears be drawn in, and be in height from the Noſtrils to the Eye-brows: and then adjoyn the Neck with the Hair, in ſuch ſort as may ſeem moſt pleaſing to the judicious Eye.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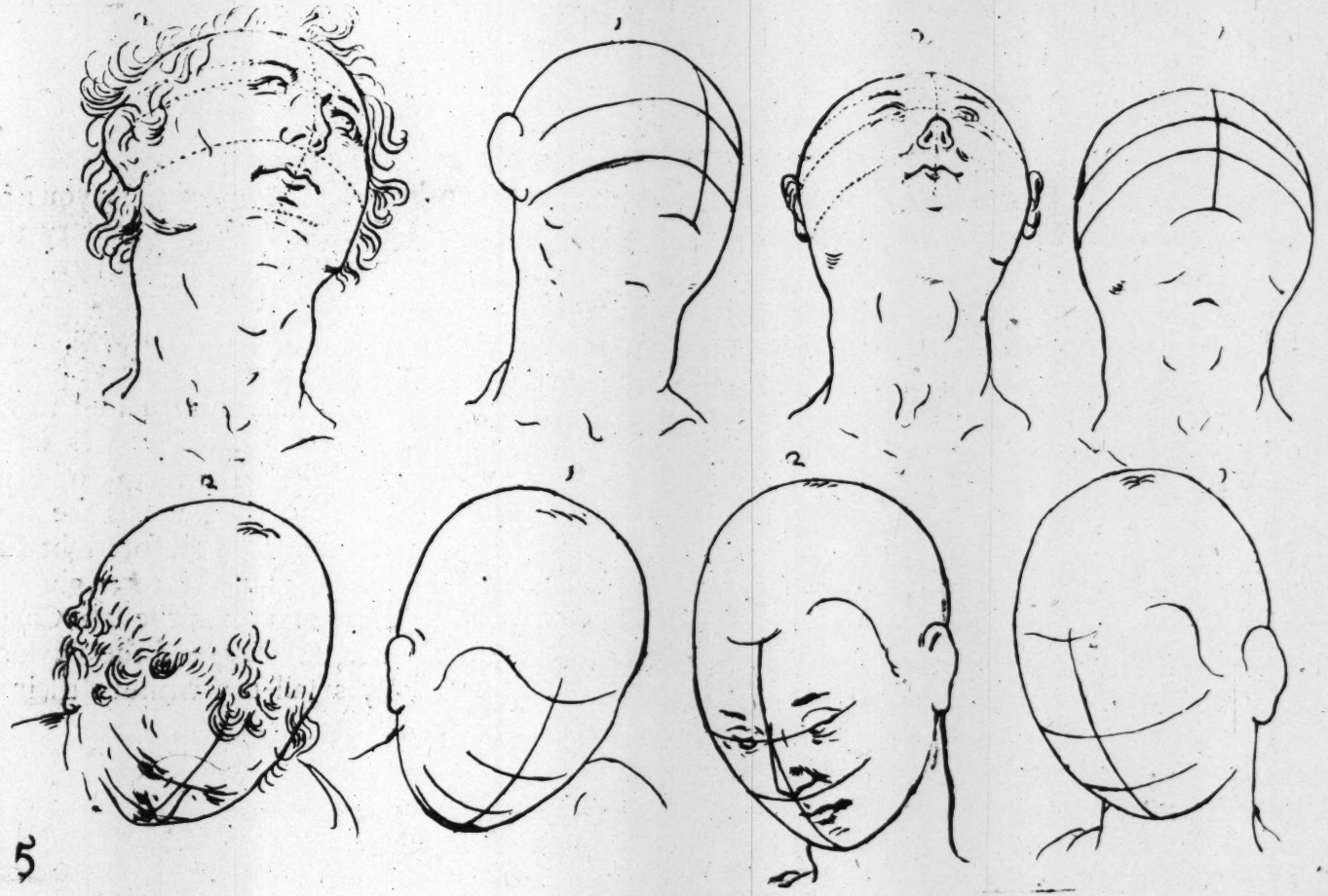
Of the Inclining or Foreſhortning of the Face.

CHAP. V.

IN this Figure I will make a brief Declaration concerning the ſcituation or poſture; and being reſpective of the bigneſs, to give eaſie wayes to obſerve in framing the altitude of the Head in any inclination, as well in Foreſhortning or other poſtures. This then requireth ſmall labour; and yet I have explained the ſame, that the manner thereof may be plainly ſeen; and the path infallible by the Lines, as they turn and concord together. Imitating the like, you may with facility draw in their places the Noſe, the Mouth, and all the parts in good order, agreeing correſpondently without much labour; as I will ſhew with theſe ſimple Lines; which with a little practice to prepare the hand and judgement thereto; all which may be abſolutely well effected thereby.

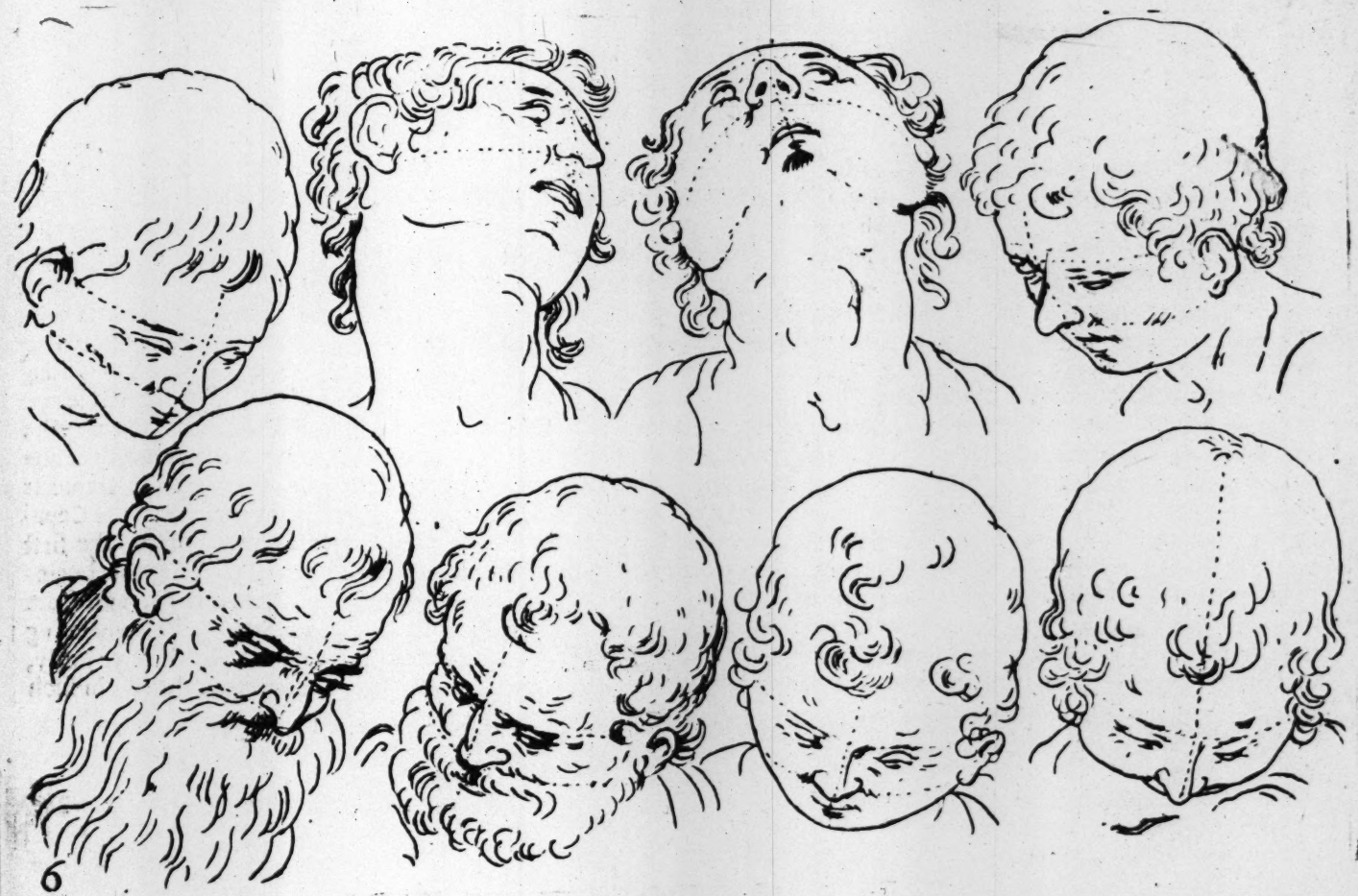


Of a more perfect Foreſhortning.

CHAP. VI.

HItherto have I treated of the Head, both foreright, and in other poſitions, but that you might know all that is needfull for the perfect underſtanding of this profeſſion, it is neceſſary that I ſpecifie the Manner how to draw the Face by an eaſie, abſolute, and fair way. Treating thus, I propound to you Methodicall meanes therein; becauſe my intent is to facilitate the matter in that manner, that without writing thereupon it may be intelligible: For a Draught well made hath that power, that it makes it ſelf underſtood without any Diſcourſe of the Author thereon. But I alwayes obſerve both the one and the other alſo; inſtructing by the Draught the intelligence firſt, and afterward by Diſcourſe thereupon. I ſay then that the Foreſhortning which is made only with Frets, Grates, Squares, or with Geometricall inſtruments, breed only a confuſion of Lines, which is not the beſt principle of expert ingenuity; the reaſon whereof is, that it can hardly be meaſured by any Rule, unleſs the whole Body be framed together. Therefore I will ſhew an eaſie Rule, very like to that of the foreright Face; that is, to make a Circular Draught with aſpect upwards, or downwards, as in the foreright Head, where the Traverſe Lines are ſtraight; but theſe go Circularly, as in the Figures in the laſt Chapter going before may be ſeen. For if the Heads flye upwards, the Trace, Strokes, and the Diviſions, muſt be raiſed as I have ſhewed; with Caution that the Ears and Eyes fall not without their due points.

Of



Of the upright or ſide-Face without any Meaſure.

CHAP. VII.

BEing deſirous to make an upright Head or ſide-Face, without any Triangle or other Meaſure; you ſhall not need alwayes to make the Triangle, but with a little eare and practice to form the Eye, which will ſerve for direction ſufficiently; becauſe the Head and other parts of the Body are to be proportionals, and made from Meaſures, it will eaſily follow, framing many with one and the ſame Stroke, you may not only facilitate it by the Eye and Judgement, but alſo accommodate the Hand to trace and draw all things right; for it is true that the Eye will have his place. And I have proved, that having drawn certain Strokes and Draughts from the life of Nature, and reduced it with the Pen and Pencil into Oyl-Colours, I have found it to come off punctually right of a correſpondent bigneſs to that which I have imitated. So that having finiſhed my work, and meaſured it part by part, I have not found any thing diſproportioned, but have alwayes found it fall out right, as I would have it. Therefore I ſay that this Rule and Meaſure which I have ſet down, is not any hinderance to the excellency of the Art, nor will weaken your worth; but will ſerve as a general Advertiſement, being once poſſeſt therewith; and alſo become prevalent when occaſion will require, to make a Head ten times as big as the natural; for that with this Meaſure you ſhall readily frame it right by any great Head; and that becauſe the Underſtanding therein is equally extended; but the more the Capacity is wanting, the more my labour will further, when need requireth. Theſe then I give as principal for the firſt Strokes, as in the next Figure may be perceived, which is from the Forehead, as I have already ſaid, for the beginning of the Noſe; that is from the lower part of the Hair, to the hollowneſs of the Noſe and the Noſtrils, and from thence to the Chin. It will afterwards be neceſſary to proceed accordingly from Stroke to Stroke, by encreaſing the Strokes untill you come to the Head, Number 10. and ſo make it to be divided into 3. parts by the Eye juſtly, without the help of Compaſſes or other Meaſures; and in ſo doing, you may eaſily accuſtome your hand, in ſuch ſort that you may draw all you would, without any labour at all.

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The Manner how to deſcribe a Head every way without Meaſure.

CHAP. VIII.

IT will not be needfull alwayes to ſet down the Meaſures which I have before preſcribed, becauſe it will be too troubleſome: But my intent is to ſhew how by an unuſuall manner by me invented, you may form in the Idea, the juſt Meaſures and Diſtances of all ſorts of Heads; and in all Poſitions, having the knowledge of this Rule; and afterwards making ſome Heads without any Triangle, or other manner of Demonſtration, knowing the errors of heights, lengths, and diviſions, into which you may otherwiſe run. Therefore I ſhew in this Figure an eaſie manner that muſt be held; and how with thoſe few Lines, to make the Head in what manner you will.

8

Of Childrens Heads.

CHAP. IX.

IT resteth only for me to treat of the manner how to draw the Heads of Children, with a Rule, invented by me, and not yet by any put forth in writing. Being then desirous to form the Heads of Children perfectly, and of what imaginable bigness you will; take a pair of Compasses, and make a perfect equilater-triangular Triangle, and upon each point thereof by turning the Compasses round, make a Circle as you see, of that bigness that they may touch each other: The like done on each, you shall so have described 3. Circles, whereof 2. shall be even upon one side, and the 3d behind them, joyned to them both. And this is the 1. demonstration: In the 2d, upon that side which the two even Rounds are, the one of them shall serve forthe Forehead, and the other for the Throat; and behind both where there is a space, you shall make the Nose, the Mouth, and some part of the Chin, with a Stroke near the Throat; afterwards adjoyning the Ear in the place which I shew, where we conclude the Triangle, and under those two Circles, joyn a little of the Nape and the Neck; and so will the Childes Head be finished in the side Face porfill, with the Crown, as you see Number 3d. In Number 4. I represent what force a real Rule and Reason hath in designing, as if in these 3. Circles I should open the excellency of the Art; because as you see, there is no point nor Circle but performeth his office, with that convenience that is possible; I make you 3. Heads in one Demonstration, of which at your pleasure you may leave away 2. and take the 3d, without danger of committing any error therein. But as I use the Triangle in the upright or side-Head, so do I use the Square or Quadrangle in the foreright Face; which being first described, will be a guide to place the Circles in their places; as in the 1. Draught I shew: In the 2d falleth the Eye, the Nose, and the Mouth: In the 3d I finish all together, with the under-Chin, Hair, and other Circumstances. But be alwayes advised in this Face, where and how to place the points and bigness of the Ear; and to situate the Eye, which I have made to avoid confusion, observing the Measures in practice by the precedent Demonstration: And so your work will come off with the greater life and judgement.

MVSEVM BRITANNICVM

FINIS.